**Exercise 3: Stored Procedures**

**Code:**

-- First, ensure you have server output enabled to see messages:

SET SERVEROUTPUT ON;

-- 1. Create a simple table for demonstration purposes

-- You must run this CREATE TABLE statement first before creating and calling the procedure.

CREATE TABLE employees\_temp (

employee\_id NUMBER PRIMARY KEY,

first\_name VARCHAR2(50),

last\_name VARCHAR2(50),

salary NUMBER

);

-- 2. Create the Stored Procedure

CREATE OR REPLACE PROCEDURE add\_employee (

p\_employee\_id IN NUMBER,

p\_first\_name IN VARCHAR2,

p\_last\_name IN VARCHAR2,

p\_salary IN NUMBER,

p\_status\_message OUT VARCHAR2

)

IS

v\_count NUMBER;

BEGIN

SELECT COUNT(\*)

INTO v\_count

FROM employees\_temp

WHERE employee\_id = p\_employee\_id;

IF v\_count > 0 THEN

p\_status\_message := 'Error: Employee ID ' || p\_employee\_id || ' already exists.';

ELSE

INSERT INTO employees\_temp (employee\_id, first\_name, last\_name, salary)

VALUES (p\_employee\_id, p\_first\_name, p\_last\_name, p\_salary);

COMMIT;

p\_status\_message := 'Success: Employee ' || p\_first\_name || ' ' || p\_last\_name || ' added.';

END IF;

EXCEPTION

WHEN DUP\_VAL\_ON\_INDEX THEN

ROLLBACK;

p\_status\_message := 'Error: Duplicate employee ID ' || p\_employee\_id || '.';

WHEN OTHERS THEN

ROLLBACK;

p\_status\_message := 'Error adding employee: ' || SQLERRM;

END;

/

-- 3. Call the Stored Procedure

DECLARE

l\_status\_msg VARCHAR2(200);

BEGIN

DBMS\_OUTPUT.PUT\_LINE('--- Calling Stored Procedure Examples ---');

add\_employee(101, 'John', 'Doe', 50000, l\_status\_msg);

DBMS\_OUTPUT.PUT\_LINE('Call 1 Result: ' || l\_status\_msg);

add\_employee(101, 'Jane', 'Smith', 60000, l\_status\_msg);

DBMS\_OUTPUT.PUT\_LINE('Call 2 Result: ' || l\_status\_msg);

add\_employee(102, 'Alice', 'Brown', 75000, l\_status\_msg);

DBMS\_OUTPUT.PUT\_LINE('Call 3 Result: ' || l\_status\_msg);

DBMS\_OUTPUT.PUT\_LINE(CHR(10));

DBMS\_OUTPUT.PUT\_LINE('--- Current Data in employees\_temp ---');

FOR rec IN (SELECT employee\_id, first\_name, last\_name, salary FROM employees\_temp ORDER BY employee\_id) LOOP

DBMS\_OUTPUT.PUT\_LINE('ID: ' || rec.employee\_id || ', Name: ' || rec.first\_name || ' ' || rec.last\_name || ', Salary: ' || rec.salary);

END LOOP;

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('An unexpected error occurred in the calling block: ' || SQLERRM);

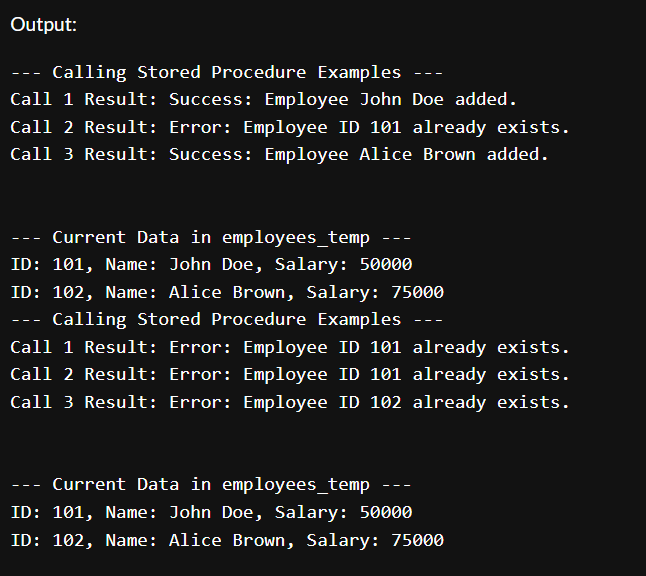
END;

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-- To clean up the table after testing (optional):

-- DROP TABLE employees\_temp;

**Output:**

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